

IN THE CLAIMS:

1. (original) A nonaqueous electrolyte secondary battery including a negative electrode containing a graphite material as the negative active material, a positive electrode containing lithium cobalt oxide as a main component of the positive active material and a nonaqueous electrolyte solution, said battery being characterized in that said lithium cobalt oxide contains a group IVA element and a group IIA element of the periodic table and said nonaqueous electrolyte solution contains 0.2 - 1.5 % by weight of a sulfonyl-containing compound.

2. (original) The nonaqueous electrolyte secondary battery as recited in claim 1, characterized in that, in said positive active material, said group IVA element is zirconium and said group IIA element is magnesium.

3. (currently amended) The nonaqueous electrolyte secondary battery as recited in ~~claim 1 or 2~~ claim 1, characterized in that said nonaqueous electrolyte solution further contains 0.5 - 4 % by weight of vinylene carbonate.

4. (currently amended) The nonaqueous electrolyte secondary

battery as recited in ~~any one of claim 1—3~~ claim 1, characterized in that said sulfonyl-containing compound is at least one of 1,4-butanediol dimethanesulfonate and divinyl sulfone.

5. (currently amended) The nonaqueous electrolyte secondary battery as recited in ~~any one of claim 1—4~~ claim 1, characterized in that said nonaqueous electrolyte solution contains, as said sulfonyl-containing compound, 1,4-butanediol dimethanesulfonate in the amount of 0.5 - 1.5 % by weight.

6. (currently amended) The nonaqueous electrolyte secondary battery as recited in ~~any one of claim 1—5~~ claim 1, characterized in that said nonaqueous electrolyte solution contains, as said sulfonyl-containing compound, divinyl sulfone in the amount of 0.2 - 0.5 % by weight.

7. (currently amended) The nonaqueous electrolyte secondary battery as recited in ~~any one of claim 1—6~~ claim 1, characterized in that said nonaqueous electrolyte solution contains, as a solvent, diethyl carbonate.

8. (currently amended) The nonaqueous electrolyte secondary

battery as recited in ~~any one of claim 1 - 7~~ claim 1, characterized in that said positive active material and negative active material are contained such that a ratio in charge capacity of the negative electrode to the positive electrode is 1.0 - 1.2 when an end-of-charge voltage is prescribed at 4.3 V.

9. (currently amended) The nonaqueous electrolyte secondary battery as recited in ~~any one of claim 1 - 7~~ claim 1, characterized in that said positive active material and negative active material are contained such that a ratio in charge capacity of the negative electrode to the positive electrode is 1.0 - 1.2 when an end-of-charge voltage is prescribed at 4.4 V.

10. (original) A nonaqueous electrolyte solution, for use in a nonaqueous electrolyte secondary battery including a negative electrode containing a graphite material as the negative active material, a positive electrode containing lithium cobalt oxide containing a group IVA element and a group IIA element of the periodic table as a main component of the positive active material and a nonaqueous electrolyte solution, characterized as containing 0.2 - 1.5 % by weight of a sulfonyl-containing compound.

11. (new) The nonaqueous electrolyte secondary battery as recited in claim 2, characterized in that said nonaqueous electrolyte solution further contains 0.5 - 4 % by weight of vinylene carbonate.